

REMARKS

The drawings were objected to under 37 CFR 1.83(a). Claims 12 to 18 and 22 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 12 to 18 and 22 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 12 to 15 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,237,364 to Tsai (hereinafter “Tsai”) in view of U.S. Patent No. 5,816,559 to Fujimoto (hereinafter “Fujimoto”) and U.S. Patent No. 2,014,643 to Bakker (hereinafter “Bakker”). Claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,244,015 to Ito et al. (hereinafter “Ito”) in view of either U.S. Patent No. 5,904,010 to Javid et al. (hereinafter “Javid”) or U.S. Patent No. 4,978,581 to Fukahori et al. (hereinafter “Fukahori”). Claims 16 to 18, 20 and 21 were indicated allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph, and to include all the limitations of the base claim.

Claims 12 and 15 to 21 have been amended. Claim 22 has been canceled and claims 23 to 25 added. Support is found in Fig. 3 and the related disclosure for example.

Reconsideration of the application based on the foregoing amendments and the following remarks is respectfully requested.

Drawings

The drawings were objected to under 37 CFR 1.83(a). The Office Action asserts “the arrangement configured to handle fuel assemblies’ as claimed in claim 22 must be shown or the feature(s) canceled from the claims.”

Claim 22 has now been canceled without prejudice.

Claim 23 recites a fuel assembly handling device, support for which is found in element 3 in Figs. 1 and 2 and in original claim 11 provided in the translation.

Withdrawal of the objection of the drawings is respectfully requested.

§112 Rejections

Claims 12 to 18 and 22 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

The Office Action asserts that in “claim 12 it is unclear what the difference is between ‘base’ and ‘support base.’” Claim 12 has been amended to remove the term “support” as the terms represent the same limitation. Applicant thanks the Examiner for pointing out this confusion.

The Office Action asserts that “it is also unclear exactly what the applicants consider the ‘support pad’ to be since numeral 8 is a general designation only and does not appear to represent any structure that resembles a ‘pad.’” A support pad 8, as shown for example in figs. 1 and 2, is a support platform or foot for supporting another device on a surface such as the ground, and is similar to those standard definitions of “pad” used, for example, to describe a rocket launch pad. It is respectfully submitted that the term support pad is clear and definite in view of the specification.

The Office Action asserts that in “[c]laim 22, the limitation being ‘totally independent’ is unclear as phrased. Also it is unclear what structure constitutes ‘...the arrangement configured to handle fuel assemblies.’” Claim 22 has been canceled without prejudice.

Withdrawal of the rejection to claims 12 to 18 and 22 under 35 U.S.C. §112, first paragraph is respectfully requested.

Claims 12 to 18 and 22 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Applicant has gone through the claims to review and clean up the antecedent basis issues, and thanks the Examiner for noting the deficiencies.

The Office Action asserts in claim 12 “‘the support base’ lacks antecedent basis.” Claim 12 has been amended to correct the antecedent basis and now only recites “base.”

Base 15 is shown in Fig. 3, and described in the specification as “resting on the bottom 1a of the pool.” (Substitute Specification page 11, lines 8 to 9). Claim 12 has been further amended to further clarify and define the bearing and arrangement mentioned in the Office Action on page 4.

The Office Action asserts that regarding the recited bearing “it becomes unclear whether this is the same one claimed on line 4 or another one.” Claim 12 has been amended to clearly define the invention.

The Office Action asserts on page 4 that the limitation regarding the arrangement in claim 12 “is unclear because it represents a method limitation in an otherwise structural claim.” Claim 12 has been amended to more clearly recite the structural limitations of the invention.

Withdrawal of the rejection to the claims under 35 U.S.C. §112, second paragraph is respectfully requested.

§103 Rejections

Claims 12 to 15 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsai in view of Fujimoto and Bakker.

Tsai discloses a foundation shock eliminator including “an upper block, a lower stationary base, an interconnecting assembly and an energy damping coating.” (Page 1, paragraph [0013], lines 2 to 4).

Fujimoto discloses conventional seismic isolation devices including a horizontal floor seismic isolation device using bearings such as ball bearing 50 provided in a strut 61 of a floor body 2 as a supporting mechanism and a conical diskshaped ball receiving plate 51 as a mechanism imparting only a restoring force. (Col. 1, lines 27 to 32).

Bakker discloses a balance block for buildings consisting “of an upper bearing member 3 suitably rigidly secured to the sill 2 and a lower bearing member 4 suitably rigidly secured to the building foundation 10. The upper and lower bearing blocks 3 and 4 are

formed with opposed inner concave surfaces 5 and 6, respectively, which form a pocket 7 within which is positioned a bearing ball 8 adapted, in conjunction with a suitable number of other like bearing balls positioned at intervals in like sets of bearing members around the foundation 10.” (Page 1, col. 2, lines 5 to 15).

Claim 12 has been amended to recite “[a]n antiseismic support pad comprising:
a base configured to support and hold the pad on a support surface, the base including a soleplate and a bearing secured to the soleplate, the soleplate configured to rest freely on the support surface and to hold the support pad in place on the support surface without a fastener;
a spherical rolling element, the spherical rolling element being mounted in the bearing to rotate freely about a center of rotation in the bearing;
a support plate having a concave bearing surface and resting on the spherical rolling element via the concave bearing surface, the support plate having a support plate axis substantially perpendicular to the soleplate; and
an arrangement configured to suspend the base from the support plate and move the base resiliently in radial directions about the support plate axis when the soleplate is not in contact with the support surface, the arrangement being connected to the support plate and-to the base.” Support can be found in Fig. 2, for example.

It is respectfully believed that the amendments clarify claim 12 and that, even if combinable, the references simply do not show all the features of claim 12.

In particular, Tsai does not show a spherical rolling element mounted in a bearing to rotate freely about a center of rotation in the bearing as claimed in claim 12. In the present invention, the spherical rolling element 16 is mounted for example in a ball bearing 17 with bearing balls 21 so that the rolling element can rotate freely.

In Tsai, the rollers 337 do not rotate freely, but only when moved by one of the tracks 31, 32 which form a cross in the X/Y directions, move. See Tsai at [0024], for example. Roller 337 in Tsai thus cannot rotate freely as claimed in claim 12.

Moreover, none of the reference used in the rejection discloses or teaches “an arrangement configured to suspend the base from the support plate and move the base resiliently in radial directions about the support plate axis when the soleplate is not in contact

with the support surface, the arrangement being connected to the support plate and to the base" as now claimed.

While Fujimoto shows springs, there is no teaching that such springs would be used to "suspend the base from the support plate... when the soleplate is not in contact with the support surface" as now claimed. Tsai does not appear to need or desire such a feature, as the elements are built from the ground up.

Moreover, Fujimoto does not show or teach an arrangement "connected to the support plate and to the base" as claimed: the springs in the cited Fujimoto figures are connected to the ground. There simply is no reason or teaching in Fujimoto or elsewhere to connect elements 31 and 32 of Tsai.

Finally, Tsai does not teach or disclose a "soleplate configured to rest freely on the support surface and to hold the support pad in place on the support surface without a fastener" and it is respectfully submitted that Bakker also does not show this feature. In Fig. 2 screws attach the base plate 25 to ground, and while in Fig. 3 no specific attachment is shown, Bakker clearly states that "lower bearing member 4 ...may be secured to the foundation 10 in any appropriate desired manner." (Page 2, Col. 2, lines 11 to 13). Thus Bakker also does not teach or disclose "a soleplate configured to rest freely on the support surface."

Since Tsai, Fujimoto and Bakker fail to teach all the limitations of claim 12, withdrawal of the rejection of claims 12 to 15 and 19 is respectfully requested.

Allowable Claims

Claims 16 to 18, 20 and 21 are allowable if rewritten to overcome the rejections under 35 U.S.C §112, second paragraph, and to include all the limitations of the base claim.

Claims 16 to 18 are dependent on claim 12 and claims 20 and 21 are dependent on claim 19. In light of the discussion above regarding claims 12 and 19, it is now believed these claims are in allowable form.

New Claims

New claims 23 to 25 have been added. Support for claim 23 can be found in original claim 22, for example. Support for claim 24 can be found in the Substitute Specification page 12 lines 4 to 7, for example. Support for claim 25 can be found in the Substitute Specification on page 12, lines 9 to 13, for example. It is respectfully submitted these claims are patentable over the prior art of record.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance and applicants respectfully request such action.

If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

Respectfully submitted,

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